AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-52. Canceled.

53. (New) A nitride semiconductor device having a nitride semiconductor layer structure comprising:

an active layer of a quantum well structure which has a first surface and a second surface and which comprises an indium-containing nitride semiconductor;

a first nitride semiconductor layer which is formed to adjoin the first surface of the active layer and has a band gap energy larger than that of the active layer;

a second nitride semiconductor layer which is formed on the first surface side of the active layer at a location more distant from the active layer relative to the first nitride semiconductor layer, which has a band gap energy smaller than that of the first nitride semiconductor layer and which has a thickness larger that that of the first nitride semiconductor layer; and

a third nitride semiconductor layer which is formed on the first surface side of the active layer at a location more distant from the active layer relative to the second nitride semiconductor layer and which has a band gap energy larger than that of the second nitride semiconductor layer.

54. (New) The device according to claim 53, wherein me first nitride semiconductor layer has a thickness 0110 angstroms to 0.1 μm.

55. (New) The device according to claim 53, wherein the active layer is doped with an impurity.

56. (New) The device according to Claim 53, wherein the layer structure is provided on a p-side of the active layer.

57. (New) The device according to Claim 56, wherein the second nitride semiconductor layer adjoins the first nitride semiconductor layer.

58. (New) The device according to Claim 56, which is a laser device, wherein the second nitride semiconductor layer is a light guiding layer, and the nitride semiconductor layer is a light confinement layer.

59. (New) The device according to Claim 53, wherein the layer structure is provided on an n-side of the active layer.

60. (New) The device according to Claim 59, wherein the second nitride semiconductor layer adjoins the first nitride semiconductor layer.

61. (New) The device according to Claim 60, which is a laser device, wherein the second nitride semiconductor layer is a light guiding layer, and the nitride semiconductor layer is a light confinement layer.

62. (New) The device according to claim 53, wherein the second nitride semiconductor layer comprises an indium-containing nitride semiconductor or GaN.

63. (New) The device according to claim 62, wherein the third nitride semiconductor layer comprises an aluminum-containing nitride semiconductor.

64. (New) The device according to claim 53, wherein the layer structure is

provided on an n-side of the active layer, and a contact layer is provided at a location more distant from the active layer relative to the third layer.

65. (New) The device according to claim 64, further comprising an indium-containing nitride semiconductor layer between the contact layer and the third nitride semiconductor layer.

66. (New) The device according to claim 53, wherein the second nitride semiconductor layer comprises an indium-containing nitride semiconductor.

67. (New) A nitride semiconductor device comprising:

a first clad layer comprising an n-type nitride semiconductor;

an active layer of a quantum well structure provided on the first clad layer, the active layer comprising a nitride semiconductor containing indium and gallium and having at least one well layer having a thickness not greater than 70 angstroms, wherein the well layer is placed on an underlying layer in a state lattice-mismatched with the underlying layer and includes a plurality of indium-rich regions and indium poor regions; and

a second clad layer which is provided on the active layer and comprises a nitride semiconductor doped with an acceptor impurity.

68. (New) The device according to claim 67, wherein the active layer is doped with an impurity.

69. (New) The device according to claim 68, wherein the impurity comprises silicon or germanium.

70. (New) The device according to claim 68, wherein the impurity is doped in the well layer.

71. (New) A nitride semiconductor device including a first n-type layer which comprises an n-type, aluminum-containing nitride semiconductor or n-type gallium nitride; and a second n-type layer which comprises an n-type, aluminum-containing nitride semiconductor, wherein the device has a third n-type layer which comprises an n-type, indium-containing nitride semiconductor between the first n-type layer and the second n-type layer.

72. (New) A light-emitting nitride semiconductor device having a nitride semiconductor layer structure and a single light-emitting layer, the device comprising:

an active layer of a quantum well structure which has a first surface and a second surface and which comprises an indium-containing nitride semiconductor;

a first nitride semiconductor layer which is formed to adjoin the first surface of the active layer and has a band gap energy larger than that of the active layer;

a second nitride semiconductor layer which is a light guiding layer and is formed on the first surface side of the active layer at a location more distant from the active layer relative to the first nitride semiconductor layer and which has a band gap energy smaller than that of the first nitride semiconductor layer; and

a third nitride semiconductor layer which is formed on the first surface side of the active layer at a location more distant from the active layer relative to the second nitride semiconductor layer and which has a band gap energy larger than that of the second

nitride semiconductor layer.

73. (New) A method of producing a nitride semiconductor device having an active layer of quantum well structure including a well layer comprising an indium-containing nitride semiconductor, the method comprising growing an indium containing nitride semiconductor as the well layer: and allowing the grown well layer to stand until indium-rich and indium .poor regions are formed in the surface of the well layer.

74. (New) The method according to claim 73, wherein the well layer is formed above an underlying layer which is lattice-mismatched with the well layer.

75. (New) The method according to claim 74, wherein the well layer comprises $In_fGa_{1-f}N$ where $0<f<1$, and the underlying layer comprises $In_{f'}Ga_{1-f'}N$ where $0<f'<1$, and $f'<f$.